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Journal of DENTAL MEDICINE

AMERICAN ACADEMY OF DENTAL MEDICINE

IN THIS ISSUE

Mechanism of Periapical Lesions and their Therapy. Samuel Turkenkopf 25
Lesions of the Oral Mucous Membrane, Medical and Dental Responsibility. F. Philip Lowenfish 27
Alveolar Bone in Health and Disease, Possibilities of Reattachment. Henry M. Goldman 30
Local and Systemic Implications of Periodontal Disease. Leslie J. Fitzsimmons 31
"Hypertrophic Gingivitis." Its Diagnosis and Treatment. Irving Glickman 32
Internal Medicine and Mouth Lesions. Felix Boenheim 34
Nutrition and Dentistry. Morton S. Biskind 35
Application of Modern Materials to Cutting Edges. Charles E. Barrett Jr. 36
The Place of Focal Infections in the Syndrome of Chronic Illness. John Oppie McCall 41
The Role of Pulp Canal Therapy in Dental Medicine. J. A. Englander 43
Clinical Procedures. George Frances Clarke 45
Psychogenic Sialorrhea and Stomatopyrosis. Samuel Charles Miller 46
Program of A.A.D.M. Annual Meeting 46
Book Reviews 48
Roster of Speakers at A.A.D.M. Second Annual Meeting ..... Inside back cover

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(Quoted from the Constitution)

"To promote the study and dissemination of knowledge of the cause, prevention and control of diseases of the teeth, their supporting structures and adnexa and related subjects; and to foster and promote a better scientific understanding between the fields of dentistry and medicine."

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Editor—Allan N. Arvins, 4 East 41st St., New York 17, N. Y.
Assistant Editor—Jerome W. Yarett
Business Manager—Louis R. Burman, 1235 Grand Concourse, New York 52, N. Y.
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THE MECHANISM OF PERIAPICAL LESIONS AND THEIR THERAPY*

SAMUEL TURKENKOPF, D.D.S., *Newark, N. J.*

In a discussion of the mechanism of periapical lesions, it will be well to review briefly the phenomenon of inflammation. As we know, inflammation is a local reaction of the body to injury. The object of inflammation is to destroy or remove the irritant and repair the damage done. No matter what the cause of the injury, the sequence of the stages of inflammation is practically always the same.

First there is the initial constriction of the blood vessels with an acceleration of the bloodstream. Then there is a dilatation with slowing of the bloodstream. In this stage there is a loss of plasma to the tissues. The slowing may become so marked that thrombosis occurs, resulting in necrosis or gangrene. In the next stage there is a movement of the white blood cells from the center of the blood vessel towards the periphery. These cells adhere to the vessel wall, a process which is called pavementing or margination of the leukocytes. Finally, migration of the white blood cells takes place through the vessel wall.

The defense mechanism may be divided into two factors: cellular and humoral. The cellular mechanism consists of phagocytes, lymphocytes, and plasma cells. The phagocytes may be polymorphonuclear or mononuclear. The polymorphonuclear cells ingest and digest alive or dead bacteria. They liberate thrombokinase which helps to form fibrin and, on dying, release a ferment which digests fibrin and dead cells. They are present only during the early or acute stages of inflammation, especially during infection with pyogenic bacteria, and are the principal constituents of pus. The mononuclear cells, or histiocytes, digest dead tissue cells, cellular debris, and other dead or foreign matter. They appear in the later stages of inflammation. The small lymphocytes, which appear still later, indicate the presence of a chronic reaction when present in large numbers. Their exact function is not known, but they are thought to have an antitoxic effect. They constitute, with plasma cells, the round cell infiltration of chronic infection.

The humoral defense consists of the blood plasma and the lymph. The blood plasma, escaping from the vessel walls in inflammation, contains more protein than under normal conditions. This results in a greater concentration of fibrinogen, which is acted upon by the thrombin liberated by the disintegrated polymorphonuclear leukocytes to form fibrin. The amount of lymph is greatly increased, and causes edema. It contains opsonins which prepare the bacteria for phagocytosis; agglutinins, which paralyze bacterial activity; bacteriolysins, which destroy bacteria; and antitoxins. The lymph dilutes bacterial toxins, and is instrumental in forming fibrin, which helps to limit the bacteria to the inflamed area. Plugging of the lymphatic channels by thrombi also helps to prevent spreading of the infection.

Tissue changes are degenerative or proliferative. The degenerative process, as in suppuration in acute alveolar abscess, is caused by the action of strong irritants. The proliferative changes are produced by irritants mild enough to act as stimulants.

Having considered briefly the nature of inflammation, we have the basis for a better understanding of the mechanism of periapical lesions. Periapical lesions are infectious or non-infectious. Among the infectious types is the acute alveolar abscess. This is an acute inflammation of the periapical tissues caused by bacterial invasion of dead pulp tissue. The chief cells present are the polymorphonuclears

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

with some mononuclear cells. As the polymorphonuclear cells die in their battle with the bacteria, pus is formed. This is an early or acute stage of inflammation. Therapy consists in establishing drainage and immediately applying penicillin into the inflammatory area. The canal is sealed against further contamination. The exact action of penicillin is not known, but it probably destroys the power of bacteria to reproduce, and thus prevents overwhelming of the phagocytes by the bacteria.

The chronic alveolar abscess is another infectious type of lesion. Here the infection is usually found in the root canal, from which toxins are liberated into the periapical tissues. These toxins are the causative factor in bone changes. The radiolucent area around the apex of a pulpless tooth is not an infected area. Therapy consists in removing the infection in the root canal. The irritant is thus destroyed and resolution takes place. Bacteriologic examination of the root canal determines whether the infection has been removed.

Still another type of infectious lesion is the granuloma. This is an example of proliferative inflammatory tissue change in response to a mild irritant. It consists of a fibrous outer capsule which is continuous with the periodontal membrane, and an inner portion of vascular connective tissue in which are found phagocytes, lymphocytes, and plasma cells. Many granulomas are sterile. Kronfeld has stated that a granuloma is not an area in which micro-organisms live, but in which they are destroyed. The granuloma tends to prevent the root canal bacteria from invading the periapical tissues. Therapy consists in destroying the infection in the root canal. The granuloma is then absorbed. When it persists, however, in spite of proper root canal therapy, it still may be sterile, according to Schour. It might also indicate the presence of a cyst.

A fourth type of infectious lesion is the cyst. It represents a defensive reaction to a mild irritant, in which the epithelial remnants in the periodontal membrane are stimulated. A degenerative inflammatory tissue change of the cystic type takes place. It may or may not be sterile. Therapy consists in root resection with proper root canal therapy and cyst enucleation in carefully selected cases. Where retention of the tooth is not advisable, extraction and complete enucleation of the cystic sac is indicated.

Among the non-infectious types, we may consider, first, acute apical periodontitis. This is an acute inflammation of the periodontal membrane, caused by an irritant other than bacteria—a blow, occlusal trauma, or injury during root canal therapy. The apical periodontal membrane is inflamed, the blood vessels are dilated, polymorphonuclear cells are present and there is an accumulation of serous exudate. Therapy depends on determining the cause and removing it. Resolution takes place spontaneously.

Another non-infectious lesion is the cementoma. Radiographically, the lesion appears as a diffuse radiolucent area about the apex of a vital tooth. It is often associated with traumatic occlusion but may suggest an endocrine disturbance. There are no subjective symptoms. The cementoma is thought to be a demineralization of the bony tissue. Correction of occlusion usually brings about a return to normal.

Although the basic factors in the process of inflammation have been well established (and we know that the mechanism of periapical lesions is an example of that process), surely the therapy presented here may offer some grounds for challenge—as indeed the very justification of salvaging an infected tooth is a controversial and challenging concept.

195 Montclair Ave.

LESIONS OF THE ORAL MUCOUS MEMBRANE MEDICAL AND DENTAL RESPONSIBILITY*

F. PHILIP LOWENFISH, M.D., *New York, N. Y.*

The mouth is like a gateway that may lead one to health or disease. Lesions of the oral mucous membranes may indicate a local or systemic process. It takes a wise diagnostician to detect the early signs of mucous membrane involvement and so prevent the serious destructive influences which are sure to follow.

How, then, can we in this short time allotted to us come to some understanding and conclusion of what our responsibilities are? Naturally, I shall give you the medical view and, I hope, through questions and discussions, that both medical and dental aspects will be covered.

Diagnosis is first and foremost. Let us begin with syphilis. The primary lesion starts as a single, small, round, hard sore which may appear on the lip, tongue, or tonsillar area. It is raised and painless, beefy red and benign looking. The neighboring lymph glands are enlarged, discrete, and not tender. The dark-field examination usually shows the spirochete pallida, and the blood serology at this stage may be negative. As the micro-organisms invade the lymphatic and vascular systems, the whole body is infected; the blood serology is then positive, and the signs are plentiful all over. In the mouth, on the tongue, and tonsillar areas, there may now appear soft, raised, oozing, secondary, moist patches, and at the angles of the mouth, the split secondary papules are often seen. All of these sores are usually teeming with spirochetes and very contagious. Years later, if the disease goes unrecognized or if the patient is poorly or insufficiently treated, a gumma or destructive ulcer may appear in the midline on the soft palate. Concomitant cardiovascular disease and meningeal or spinal involvement on a syphilitic basis are frequent. Mention should be made of the peg-shaped incisor teeth of congenital syphilis which, with the deafness and the cloudy, steamy cornea of the eyes (interstitial keratitis), complete the Hutchinsonian triad.

A solitary, primary lesion on the lip could also be an epithelioma or carcinoma. This also would be hard but usually not as indurated as the chancre. It would be present a longer time, bleed frequently, and keep growing. A chancre would appear in a few weeks without any treatment. The lymph glands on the side of the neck may indicate invasion, and the question of the removal of the entire lesion and radiation both of the sore and of the glands should come in for consultation. The microscopic section is of paramount importance in the determination of the prognosis and further therapy. Leukemia may present itself as a hard nodule on the lip with generalized leukemic nodules elsewhere, where the blood count and biopsy could clinch the diagnosis. The cold sore, or herpes simplex, on the lip, has a soft border and consists of small groups of vesicles, often painful and annoying, the cause of which is usually a cold, upset stomach, or brought on by some actinic rays.

I should like to cite an unusual case of tuberculosis of the oral mucous membranes. Last Monday I saw a twenty-nine year-old colored girl at the Medical Center. I presented her at the Academy of Medicine some eight years ago as a very interesting case of tuberculosis, and my question then was, "What shall or can we do to get her well?" She has been under my observation for fifteen years and, in brief, this is her history: At the age of eight she had a tuberculosis of the skin of her legs and thighs. In a sanatorium with plenty of sunlight and good fresh food, her skin lesions healed and she got well. Her lungs were never involved. A few years later, at the age of fourteen, the skin on the side of her face

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

and the upper and lower gingivae in front, the uvula, adenoid and tonsillar tissues were all involved with ulcerated, bleeding, hypertrophied, friable masses. All of these tissues were biopsied and guinea pig inoculations done. The pathologist reported tuberculosis and tubercle bacilli found in every section. The young woman was examined in every department and found negative. She received every known treatment that with safety we could give, except streptomycin, and today she is practically cured, holding down a job, and in a happy frame of mind.

What has been her best treatment? Plain cod liver oil, two tablespoons three times daily, and generalized ultraviolet light twice weekly. We are all justified in feeling elated over the magical results of the antibiotics, penicillin, streptomycin, and tyrothricin, but let us not forget that there is still a place for iron, liver, cod liver oil, fresh eggs, milk, meats, fruits and vegetables, rest and sunlight.

A few words about lichen planus, lupus erythematosus, leukoplakia, or leukokeratosis buccalis, and lingualis.

Lichen planus shows itself over the interdental areas as milky-white polygonal, cobweb-like or annular lesions. The centers are clear and the lesions are not infiltrated. On the flexor aspects of the wrist, discrete lilac polygonal, shiny papules are usually found.

Lupus erythematosus is slightly infiltrated and has a whitish, red, marble-like appearance, due to scar formation. There is atrophy and telangiectasia present. The typical lesions are usually seen across the bridge of the nose and cheeks, often in butterfly formation.

Leukokeratosis reveals itself by leathery, infiltrated patches, with a tendency to fissures, ulceration, and carcinomatous degeneration. It may be related to local sites of irritation, such as rough teeth or pipestems. It is often seen in tertiary syphilis.

About the acute infectious diseases, remember that chicken pox, or varicella, has vesicles over the hard and soft palate and pharyngeal areas. In Rötheln, or German measles, papules may be present over the same areas.

The raised pearly lesions on an erythematous base over the buccal parietes and tongue, with fever, photophobia and cough, are the first-day sign of measles, a forerunner of a macular-papular eruption starting on the face and spreading downward over the entire body, usually appearing on the fourth day.

On the first or second day, in scarlet fever, the tongue is raw and glistening, studded with swollen papillae, giving it the diagnostic strawberry appearance. Syphilis of the tongue may show itself as a chancre, mucous patch, or gumma, the first, second, and third stages respectively of this disease.

Glossitis and stomatitis are early and common symptoms of pellagra and systemic nutritional or vitamin deficiencies, such as ariboflavinosis and aniacinosis. The tongue is red, swollen, rubbery, and painful; there is a smooth papillary atrophy present. In pellagra, the dermatitis about the neck and over the glove-like portions of the hand and the dramatic response to niacin and crude-liver therapy should be emphasized. Glossitis may also be present in pernicious anemia and especially in tertiary syphilis. And so we recognize that what was once considered a local glossitis and treated with local applications and mouth washes is now in reality evidence of systemic avitaminoses or infections. Our diagnostic acumen must tell us whether this tongue or oral cavity condition is infectious or nutritional. Is the paleness due to iron or liver deficiency? Herpetic lesions, granuloma pyogenicum, drug eruptions, and pemphigus may have their oral and lingual elements. The pigmentation of Addison's disease may be found in the mouth, and the bismuth and lead bluish lines of the gums are well known to you. Argyria from silver salts may darken the entire oral mucosa. The purplish pigmented nodules of Kaposi's idiopathic multiple hemorrhagic sarcoma are often found over the soft palate. I have only time to mention Vincent's infection, scurvy, actinomycosis, a deep fungus in-

fection, cheilitis often caused by toothpaste, mouth washes, or lipstick; aphthous stomatitis, sprue, and angioneurotic edema, always a baffling problem. Then from your point of view—it cannot be stressed often enough—ill-fitting dentures, bad teeth, and poor dental sanitation.

Of acute pemphigus, a most malicious and malignant disease, I must tell you this: it begins insidiously, usually in the mouth, and there is your responsibility. In my experience, the dentist sees these cases before the dermatologist. The apparent benign bullae may so advance and engulf the entire body with a hemorrhagic diffuse bullous denudation, that I have seen life snuffed out in three weeks. In my longest case (fifteen months' duration), a forty-three year old woman went down in weight from 140 to 42 pounds before exitus. Postmortem studies fail to give us any clue as to etiology.

The drug eruptions that may produce vesicles or bullae, edema, erosions, or ulcers, are many. The lesions may vary from split pea size, or involve the whole buccal area. The more common of these chemicals are phenolphthalein, found in laxatives, reducing pills, chewing gums, and coloring matter in cakes and in some dentrifices; also the sulfonamides, sodium perborate, gold salts, iodides, bromides, chlorides, bismuth, silver, and lead. Erythema multiforme bullosum orificialis must always be carefully studied and the prognosis guarded. Acute pemphigus must be ruled out, and drugs of all sorts must be eliminated.

A few words about moniliasis or thrush. You have seen these white, creamy, irregular patches on the dorsum of the tongue, suggesting snowdrifts and so often accompanied in the angles of the mouth by a fissured and macerated eruption—the so-called perleche. It would seem that the predisposing factor in moniliasis is a dietary deficiency in which monilia albicans, occurring normally in the mouth, find suitable conditions for prolific growth. The frequency with which moniliasis occurs in marasmic infants and debilitated adults emphasizes the necessity of a high vitamin diet. Factors which predispose to maceration as soap and water, poor-fitting dentures, and excessive sweating, must be corrected. Diabetics must be regulated. A low carbohydrate diet is given, and if obesity is present, the weight should be reduced.

Our opportunities face us. We know much, but there is so much more to learn. Let us go forward with great credit to our professions, but of greater and everlasting value to our patients.

57 West 57th Street

Ohio State Receives Grant for Cancer Education

Greater development of teaching in the field of oral cancer at Ohio State University's College of Dentistry has been made possible through a grant of $4,990 from the U. S. Public Health Service.

Announced by Dean Wendell D. Postle, the grant is one of the first to a dental college by the Research Grants Division of the National Institute of Health. Administration of the expanded cancer teaching program will be handled by Dr. Hamilton B. G. Robinson, professor of oral diagnosis and pathology, OSU College of Dentistry.

The grant, recommended by the National Advisory Cancer Council, will facilitate the teaching of pathology, diagnosis and therapy of oral cancer by making possible the expanded activity of present personnel and employment of new personnel.

"Clinics, microscopic conferences, seminars and lectures will be used," Dean Postle said, "these will emphasize the importance of cancer, in general, and oral cancer, in particular."

ALVEOLAR BONE IN HEALTH AND DISEASE POSSIBILITIES OF REATTACHMENT*

HENRY M. GOLDMAN, D.M.D., *Boston, Mass.*

The periodontium may be defined as those tissues which invest and support the teeth. It consists of the alveolar bone, the periodontal membrane, the cementum of the tooth and the gingiva. The need for an understanding of the physiology of these tissues in health and the changes which occur in them in disease is essential in order to diagnose and treat periodontal diseases effectively. It is the purpose of this round table to discuss the changes in the alveolar bone in health and disease.

The term "alveolar bone" in general usages should be further differentiated and defined as follows: "Alveolar bone is that which lies adjacent to the periodontal membrane and radiographically is spoken of as 'lamina dura'." Alveolar bone is a dense cortical bone. The supporting bone, the spongiosa, is, as its name implies, the support of the alveolar bone. It consists of trabeculae arranged in an architectural pattern physiologically suited for the function present. Under normal conditions, alveolar and supporting bone are in a constant state of flux, resorption and apposition going on. However, both processes are in a state of equilibrium allowing for a constancy in the amount of bone.

The state of the alveolar and supporting bone is associated with the function placed on the teeth and the force transmitted through the periodontal membrane to the bone. The changes in bone to different functional forces illustrates the adaptability of this tissue. Removal of bone where it is not needed and deposition of bone to areas of new requirement are seen. When there is decreased function on a tooth because of loss of an antagonist, loss of supporting bone results. The trabeculae become diminished and become arranged in a non-functional architectural pattern. However, while the alveolar bone becomes thinner, as does the periodontal membrane, it does not undergo radical change. The adaptability of the alveolar and supporting bone to heavy function is shown by an increased amount of bone, especially on the buccal and lingual aspects. These latter areas may become very dense, the marrow spaces becoming very small. The interdental bone shows a network of thickened trabeculae architecturally adapted to the force applied to it.

The destructive tendency of the alveolar crest simulated by gingival inflammation has been pointed out by many investigators. That this tendency may be influenced by systemic resistive factors cannot be denied. This is evidenced by advanced resorption of the alveolar crest in one case, while in another instance minimal destruction is evident, although the etiologic factors in both cases may be alike in type and severity. This also accounts for the destruction due to traumatism in one individual, whereas resistance to the force in another. While in many cases the systemic resistance factors cannot be determined, search for them is important in that it may mean the difference between success and failure of periodontal therapy.

Thus the importance of local and systemic factors in periodontal diseases must be stressed. Both are equal in their influence in the etiology of these diseases; both are in some measure dependent on the other in the production of disease.

While local gingival inflammation or systemic influence alone may cause disease, in many instances it is the combination of both which reacts in the destruction of the alveolar and supporting bone.

It is felt that search for a systemic background or resistive factor, as I have

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

spoken of, in periodontal disease will not be forthcoming if we are going to look for systemic diseases as they influence the periodontium. That has been the general tendency in the past, to pick out one disease and say, "This causes periodontal disease." I think in a large measure that that is going to prove a fruitless search. We must look for underlying resistive factors of systemic origin if we are going to achieve some measure of success.

482 Beacon Street

LOCAL AND SYSTEMIC IMPLICATIONS OF PERIODONTAL DISEASES*

LESLIE J. FITZSIMMONS, D.D.S., *East Orange, N. J.*

The local implication or involvement of periodontal disease is that wherein the gingivae, the process and the periodontal membrane are found to be under the destructive influence of the disease entity. The gingivae may be inflamed, hyperplastic, or atrophic, depending upon the type of periodontal disease apparent. Likewise, the classification of the disease will type the involvement in the process as atrophic or degenerative, and in the periodontal membrane as inflammatory, degenerative, or atrophic. The experience of the examining dentist will aid in recognizing the symptoms of the disease, and the diagnostic listings must then come under the latest suggestions offered by the American Academy of Periodontology's Committee on Nomenclature.

Time and space will not allow us to go into detailed description of the manifestations of the local implications, but suffice it to say the cardinal signs of, and the resultant destruction by, the unattended inflammation will herald the progress of the disease.

The systemic implication or involvement will manifest itself in tissues not far distant from the actual focus, where the gingivae become infolded in necrotic gingivitis. The mucous membrane covering the soft palate, the tonsil area, and the upper part of the trachea, are known to manifest typical signs of the raging fuso-spirochetal infection. Due to the protective action of the lymph, the blood and the digestive fluids, rare have been the bacteremias traced to periodontal disease. There has been evidence of the increase in bacterial count in the bloodstream after the chewing of food in the mouth of one suffering from periodontal disease. However, many authorities are agreed that constant ingestion of the suppurative matter, coming from the so-called pyorrhea pocket, may so alter the digestive action of the stomach and small intestine that serious impairment in normal metabolism can result. The function of the great organs which contribute to normal metabolism is thereby changed, and the resultant malfunction may result in death.

We must not overlook the psychosomatic effects of periodontal disease, such as a patient who becomes acquainted with the fact that she has the dreaded pyorrhea, and can become so morose that serious nervous impairment will result.

We are aware of the fact that many symptoms that are present locally may be of systemic origin, and in view of the fact that other discussers are speaking of this relationship, we have not included it in our discussion.

144 Harrison Street

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"HYPERTROPHIC GINGIVITIS," ITS DIAGNOSIS AND TREATMENT*

IRVING GLICKMAN, D.M.D., *Tufts College Dental School, Boston, Mass.*

Increase in the size of the gingivae or gingival enlargement is a frequent feature of gingival disease. Common usage has grouped all gingival enlargements other than tumors under the term "Hypertrophic Gingivitis." Perpetuation of the term "Hypertrophic Gingivitis" is an obstacle in the diagnosis and treatment of gingival disease for the following reasons:

a. It is inconsistent with accepted usage of the term "hypertrophy" in the field of general pathology. In the latter instance hypertrophy implies an increase in the size of a tissue or organ which results from an increase in the size of individual cells, in an effort to accommodate an increased functional demand. In contrast with the above implications of the term "hypertrophy," increase in the size of the gingivae results from tissue changes other than the enlargement of individual tissue cells, and in rare instances, if any, can it be construed as a response to increased functional demand.

b. The term "Hypertrophic Gingivitis" suggests that increase in the size of the gingivae constitutes a specific disease entity. It thereby implies a similarity in a variety of clinical conditions which may be basically dissimilar in etiology and underlying histopathology.

c. The prevailing implications of the term "Hypertrophic Gingivitis" have led to the assumption that some special form of treatment exists or should exist which is equally effective for the correction of all gingival enlargements. This assumption has not withstood the test of clinical experience.

If it is desirable to choose one term to connote increases in the size of the gingivae, a term which is merely descriptive of the clinical findings should be selected. "Gingival Enlargement" is such a term. It describes only that which can be observed clinically. It does not suggest etiology, nor does it erroneously imply the nature of underlying pathological changes.

Because different microscopic changes of varied etiology are frequently responsible for "Gingival Enlargement," comprehensive diagnosis requires information regarding individual cases beyond that which can be derived from clinical examination alone. Gingival biopsy and a complete case history afford additional sources of the required information.

On the basis of etiology and underlying histopathological changes, gingival enlargement may be divided into the following categories:

I. Inflammatory.
II. Non-inflammatory.
   a. Hyperplastic.
   b. Leukemic.
   c. Vascular.
   d. Tumor.
III. Combined inflammatory and non-inflammatory.

In the light of the above analysis of increased gingival size, terms such as "Inflammatory Gingival Enlargement," "Leukemic Gingival Enlargement," or "Combined Inflammatory and Hyperplastic Gingival Enlargement" evolve as reasonable connotations for clinical conditions which hitherto have been disguised by the term "Hypertrophic Gingivitis."

As a guide in the treatment of gingival enlargement, diagnosis predicated upon etiology and underlying histopathological changes should replace partisan enthusiasm for preferred techniques or medications. Depending upon the nature of individual cases, the treatment of gingival enlargement entails one or more of the following procedures:

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

1. Removal of all local irritating factors.

2. Correction of all environmental factors conducive to inflammation.

3. Correction of systemic factors capable of increasing the cellular content of the gingivae.

So long as any of the above procedures is neglected, gingival enlargement will persist or recur after treatment, regardless of the instrument, drugs, or technique employed.

CONCLUSIONS:

Comprehensive diagnosis of gingival disease is a prerequisite for effective treatment. Because it is inaccurate and ambiguous, the term "Hypertrophic Gingivitis" as a connotation for increases in the size of the gingivae diminishes the likelihood of such diagnosis.

It is therefore suggested that the term "Hypertrophic Gingivitis" be discarded and that it be replaced by the term "Gingival Enlargement" for the clinical description of increases in the size of the gingivae. It is further recommended that in individual cases the term "Gingival Enlargement" be suitably qualified on the basis of biopsy study and case history so as to indicate etiology and underlying histopathological changes.

COMMENTS AT THE MIDWINTER MEETING

A number of guests at the luncheon spoke briefly giving their impression of the Academy program. Summaries of their comments are herewith presented:

Dean J. L. T. Appleton, University of Pennsylvania Dental School: My chief interest lies in the field of preclinical sciences whose function is to help the student consider the total organisms. If my interpretation is correct, that is the viewpoint of the Academy.

Dr. Henry M. Scheer, President of New York University Medical Alumni Association: I am pleased to be present at a meeting of an organization that holds a promise of assuming greater cooperation between medicine and dentistry for the benefit of the patient.

Dean Alphonso Leng, Dental School, Santiago, Chile: I have emphasized in my country the necessity of the kind of collaboration between physicians, laboratory workers, and researchers advocated by the Academy. With this cooperation and that of the physicians in each specialty, dentistry will reach the highest possible scientific levels.

Dr. Samuel Fielding, South African delegate to United Nations: In England the scale of fees allowed to the dentist under semi-state medicine and dentistry is so low that the standard of dentistry has been considerably lowered over the past twenty years. I am sorry to say that recently South African dentists have fallen into the trap and have issued a scale of fees which limits incentive. The result is that our dental schools are empty.

Dr. Sidney Sorrin, President: The American Academy of Dental Medicine, in recognition of the work that our past president has done in the development of the Academy, has had a plaque prepared for presentation to our past president. Presentation of this token is my pleasant duty. The inscription reads: "Distinguished Service Award of the American Academy of Dental Medicine, is presented to Samuel Charles Miller, President 1946-1947, whose outstanding leadership has advanced the objectives of the Academy."

Dr. S. C. Miller: I wish to credit the entire membership with the idea and development of the Academy. The Academy is young and it has many directions for growth, many avenues Dr. Sorrin, Dr. Blass, Dr. Greenhut and the others have not even contemplated. Our medical colleagues are in the important position of showing medicine the place of dentistry in a complete health program.

J. L. B.

INTERNAL MEDICINE AND MOUTH LESIONS*

FELIX BOENHEIM, M.D., *New York, N. Y.*

During the last years, the causal relationship between systemic and dental diseases was studied very carefully, especially the influence of the regulating organs (endocrine glands, vegetative nervous system, blood) on the organs of the oral cavity.

The effect of the regulating organs depends not only on the function of these systems, but also on the reactive possibility of the end-organs; that is, of the organs which are stimulated or inhibited by the regulating organs. The same clinical picture may develop because the stimulating organ is deficient or because the end-organs are unable to use the normal hormone.

To differentiate both conditions is very difficult. For example, the clinical picture of hypopituitarism and ovarian agenesis resemble each other in a way that they could not be differentiated until estimation of the excreted gonadotropine, estrin, and 17-keto-steroids became possible. The dentist finds small teeth in both conditions, but in addition "unusually heavy" gingivae in ovarian agenesis.

The dentist should be familiar with the physiology and pathology of the regulating organs, especially of the endocrine glands, because of their role in the pathogenesis of periodontoclasia.

The first question he must ask himself is whether the oral pathology can be explained by the local findings. Only if this is not the case or if the course is unusual, he needs the help of a physician. Fortunately, by far the majority of diseases of the oral cavity has a local reason or cause.

In the remaining cases, the oral features may be a "sign of alarm" to the dentist. Hypoplastic teeth with diminished calcification of the dentin and enamel caused by tetany may warn the dentist against performing any surgery; even against giving the patient an injection of novocaine-adrenalin, because it may result in a severe, even fatal attack. It would be equally dangerous to make a mistake in judging swollen, ulcerated, necrotic gingivae in a case of leukemia. A minor operation may result in a fatal bleeding.

The dentist is often the first to have the opportunity to diagnose a systemic disease like hypothyroidism, Addison's disease, diabetes mellitus, or a general bone lesion. A cyst in the jawbones may be of local origin or a symptom of von Recklinghausen's hyperparathyroidism, a disease caused by an adenoma of the parathyroids. Only the removal of the adenoma will help the patient.

By the way, the diagnosis of von Recklinghausen's disease is not quite so simple as we thought some years ago. We have to make the diagnosis in the absence of the main features (bone cysts, increased calcium, decreased phosphorus in the serum). On the other hand, other bone diseases may feign a similar clinical picture; for example, Albright's polyostotic fibrous dysplasia, a disease, in which the jawbones are involved in about 20 percent. However, here the parathyroids are free from any pathology.

Also in cases of a disturbance of the "anlage" (germ), an oral feature may be only a concomitant symptom; for example, anodontia is mostly associated with other ectodermal disorders, namely, elephantiasis of the gingivae, absence of sweat glands in the skin, faulty fingernails, absence of hair, malformation of the iris, and abnormalities of bone development.

Approximately 10 percent of all cases of periodontoclasia are accompanied by a systemic disease, especially a disorder of the endocrine glands or a metabolic disturbance. One may doubt the causal relationship, but there is no doubt that the dentist will not be successful in the

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

presence of a general disease unless it is also treated.

On the other hand, there are many cases in which the physician needs the help of the dentist. In Grave's disease for example, the question of a focal infection arises and is of the greatest significance. If it is present, it must be removed. Otherwise, the medical treatment will be a failure.

These examples show the importance of the cooperation of physicians and dentists.

200 West 58th Street

NUTRITION AND DENTISTRY*

MORTON S. BISKIND, M.D., *N. Y.*

This tissues of the mouth, perhaps more than any other accessible portion of the body, reflect the nutritional status of the individual. Lesions of the lips, the tongue, the gums, and the oral and pharyngeal mucous membranes are exceedingly common and easily discernible to the naked eye. Unfortunately, many of these lesions are either missed completely or misinterpreted. Unfortunately, too, they are usually a matter of grave concern for general bodily health, as they indicate not only a serious depletion of substances indispensable to cellular metabolism, but also the occurrence of secondary endocrine disturbances of far-reaching significance.

Primarily, these disturbances entail impairment of liver function on a nutritional basis and, secondarily, the induction of a number of endocrine disorders, associated with excess estrogen both in the male and the female, and with diabetes and a number of other conditions.

The dentist usually sees these lesions long before they are even accessible to the physician, and as these lesions involve not only the tongue but the periodontal tissues, their recognition and treatment is extremely important from the dental standpoint, as well as from the systemic standpoint.

Most cases of atrophic glossitis are overlooked because they are so common as in many cases to attain the status of "normality," whatever that might be. However, if careful kodachrome records are kept of the appearance of tongues routinely, as I have done for about seven years, and subsequent records are made following nutritional therapy, many of the tongues thought formerly to be "normal" turn out really to be deficient, as they show responses to therapy. When the therapy is withdrawn, the lesions recur. In that way we learn to recognize many of these lesions and to understand their significance.

Another reason these lesions have been ignored is that often they have not been treated adequately, and because they have not had adequate treatment, they have been thought not to respond to nutritional therapy.

Adequate nutritional therapy must meet three requisites. One, it must be intensive. Two, it must be complete, and by complete I mean it must include not only the crystalline vitamins we know, but an adequate amount of a natural source, preferably liver. Three, it must be persistent.

Some nutritional defects, gingivitis, for instance, may take a year or a year and a half of intensive therapy before they heal completely, whereas some cases of glossitis may heal in a week. The important elements of nutritional therapy, I repeat, are intensity, completeness and persistence.

55 East 86th Street

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

APPLICATION OF MODERN MATERIALS TO CUTTING EDGES

Preliminary Report

CHARLES E. BARRETT JR., D.D.S., *West Hartford, Conn.**

In using instruments for periodontal treatment, particularly those used subgingivally, dentists have been forced to accept a compromise between strength of shank and hardness and long lasting properties of the cutting edge of such instruments. In order to reach to the full depth of a pocket, it has been necessary to keep the shank diameter of instruments below .040" or 1 mm. in order not to overextend the wall of the pocket. The steel which is capable of taking and maintaining the keenest and longest lasting edge is too brittle. From the standpoint of mechanical properties its proportional limit is so low that there is always danger that it may break and lacerate the tissues. The compromise which was arrived at in the interest of safety was a grade of spring steel. While this spring steel could withstand rough usage, its cutting edge, even though having the support of a 90° angle, would not hold up for any length of time against the highly abrasive deposits on the roots of the teeth.

This made it necessary to resharpen instruments practically every time they were used. Some stainless steel instruments were used, but they also possessed comparably unsatisfactory characteristics.

We felt that some improvement could be made whereby the desirable properties of a longer lasting cutting edge could be obtained without sacrificing any of the strength in the shank of our present instruments.

We took our cue from the toolmakers. For years they have used carbide-tipped tools to cut hard and abrasive materials.

Upon experimenting, we found that a thin layer of .005" to .010" could be removed from the face of a cutting instrument made from a grade of steel having the necessary impact resistance and proportional limits. This layer could then be replaced with carbide with little loss of strength, providing a dental student with a cutting edge, which should last through his college years.

Accordingly, some instruments embodying this principal were designed and constructed.

In several instruments we have simply substituted for the carbide, an alloy of chromium, cobalt, tungsten, known as Jessop's T and V Cast Alloy.

Other instruments have been given a treatment known as hard facing, which consists of fusing Fanweld directly onto the steel.

We are also experimenting with other possibilities, such as a form of case hardening known as nitriding, a plating of chrome cobalt alloy, and finally with cold spraying the hard facing directly onto the steel blade.

By eliminating the need for sterilizing a stone and re-sharpening instruments for each patient, the work is expedited.

By eliminating the human errors in resharpening, the most efficient instrument design is retained.

This work is being done with the hope of simplifying and improving instrumentation.

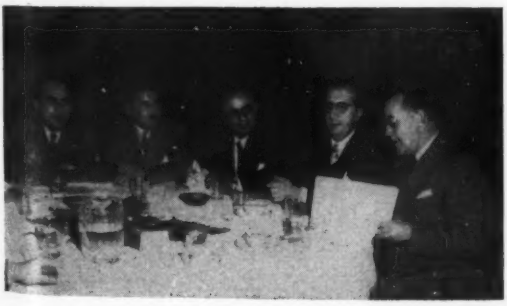
10 North Main Street

* From the Periodontia Department, New York University College of Dentistry.

CANDID VIEWS AT THE A.A.D.M. ANNUAL MEETING

J. O. Mcall
on *Focal Infection.*

Hayes Martin presents *Cancer of the Mouth* for discussion.



Leslie J. Fitzsimmons leads talk on *Local and Systemic Implications of Periodontal Disease.*

President S. Sorrin presenting plaque to Past-president S. C. Miller.

Dean Alfonso Leng of Santiago, Chile, addresses the Academy.

Samuel Fielding, U.N. delegate from South Africa.

Dean J. L. T. Appleton of the University of Pennsylvania.

Discussion on *Internal Medicine and Oral Lesions* led by Felix Boenheim.

Irving Glickman presents *"Hypertrophic Gingivitis," Its Diagnosis and Treatment.*

Morton S. Biskind correlates *Nutrition and Dental Disease* for his group.

Pulp Canal Therapy in Oral Medicine is the subject at J. A. Englander's table.

F. P. Lowenfish's group discusses *Lesions of the Oral Mucous Membrane.*

Henry M. Goldman leads topic discussion on *Alveolar Bone in Health and Disease.*

Clinical Procedures is the subject at George Francis Clarke's table.

Samuel Turkenkoff on *Periapical Lesions and their Therapy.*

THE PLACE OF FOCAL INFECTION IN THE SYNDROME OF CHRONIC ILLNESS*

JOHN OPPIE MCCALL, D.D.S., *New York, N. Y.*

Hunter's famous diatribe in 1910 against septic dentistry and other localized infections was a shot that was heard around the world of both dentistry and medicine, especially medicine. The prompt follow-up by Billings, Rosenow, the Mayos and others, seemed to confirm Hunter's claims and ushered in a new era in medical practice. The effect of the introduction of the focal infection thesis on dentistry was cataclysmic to a degree that can hardly be realized by those who have come into the profession in recent years.

For some time after 1910 the majority of the medical profession conducted what seemed to most dentists to be a virtual witch hunt for dental infection. The same was true for tonsil infections, and so forth. But dentistry was in a particularly trying position due to the fact that loss of teeth meant interference with esthetics, comfort, and masticatory function. Any failure to secure relief from systemic symptoms put the dentist in an embarrassing position. This was aggravated when the diagnosis (reading of radiograms) was done by physicians, a practice which frequently led to error.

Ultimate realization by physicians that only dentists had the special training required to diagnose infections of the teeth and their supporting structures, plus the development of the needed diagnostic skill by dentists, led to more satisfactory procedures. On their part, dentists, in general, accepted that responsibility and recognized the necessity of improving methods of treatment so that dental infections could be prevented or cleared up, if present in treatable form. Extraction was accepted as being necessary in cases in which treatment was not feasible or was felt not to be advisable.

While all this was going on, a peculiar change was coming over the medical profession with regard to acceptance of the validity of the theory. On the one hand, many patients for whom surgical removal of foci was carried out failed to show improvement or had recurrence of symptoms, thus causing both embarrassment to the physician and a distinct cooling off of his enthusiasm. On the other hand, studies of vitamin deficiencies and the refinement and extension of knowledge regarding endocrine substances and their actions served to stimulate speculation as to other possible causes of what were previously considered to be focal infection diseases.

Another factor influencing the trend of thought was the development of more precise diagnostic methods with consequent differentiation of sub-types of systemic disease. This tendency was particularly exemplified in the field of arthritic disorders wherein several distinct subtypes were differentiated, with only a portion of these being designated as having an infectious association. Even in the so-called infectious types, it came to be doubted by some prominent practitioners whether the infection came from a dental focus and, even if it did, whether removal of infected teeth would result in improvement of the arthritis.

In spite of some circumstances tending to discredit the focal infection theory, it is a fact that most medical practitioners believe that focal infection is a potent source or influencing factor in certain types of disease. Many send their patients to dentists for diagnosis and removal of infections found in the jaws. Dentists also regard infections seriously and attempt by therapy or surgery to prevent or clear up such infections.

It is obvious that chronic infection is a health hazard and that its presence is not to be regarded lightly by either the

* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

physician or dentist. Yet we see many people whose jaws for many years have harbored obviously infected teeth, these people meanwhile enjoying apparently normal health. If we agree that chronic infections may cause secondary disease, it is equally to be agreed that not all such infections do cause disease. There is clearly an element of resistance involved or, if you will, immunity. This must be reckoned with in studying this chapter in the story of disease.

In spite of all the splendid research work that has been done, there still are gaps in our knowledge which need to be filled in before the medical and dental professions can utilize to the best advantage the diagnostic and therapeutic tools that are available to them in this field. Particularly is such knowledge needed if the two professions are to evolve a definite approach in the realm of prevention. Lack of conviction, as well as of knowledge, now robs the annual medical and the semi-annual dental check-up of some of its opportunities for promoting the well-being of the examinees which might be extremely valuable.

The question is, what knowledge is needed that is not now available? Among other things, we have to know just what diseases may be caused by focal infection. We need to know why some cases of focal infection disease improve and some do not; when infectious foci are removed, why some cases have recurrences after initial improvement. We should be able to determine when chronic infection is successfully invading the bloodstream and when invasive organisms or toxins have been eliminated from the circulating fluids. It would be very helpful if we could know what it is that confers immunity to focal infection disease; whether this is related to nutrition, endocrine balance, age, physical activity, or other factors.

What the dentist wants to know, particularly in reference to the apparently healthy patient coming to him primarily for dental service, is how far he should go with extractions in borderline cases. These are cases in which there is dubious evidence of oral infection and in which the presumptive infection could only be eliminated by extraction. What tests can be applied, either by dentists or physicians, which would indicate that there was trouble brewing and that all precautions should be taken?

What is needed, in a word, is the reduction of the focal infection entity to a more nearly exact science. This is essentially a medical problem, but the dentist has a considerable stake in it. It seems likely that the final solution of this problem must be worked out through a combination of clinical and laboratory research, in which the dentist would occupy a position of some importance in the program.

133 East 58th Street.

Dean Wright on Dental Medicine

At the College we believe that advances in dental science and the increasing dental health needs of the public call for emphasis of the biologic sciences in dental education leading to an understanding of general public health problems and greater cooperation with other health professions and agencies in the relief of human disease. Recent development in the field of dental medicine is in keeping with increasing need for cooperation between medicine and dentistry in the college, in the hospital, and in practice. This aspect of dental training is augmented by members of the medical faculty who teach dental students at the medical and dental colleges and a scheduled 40-hour medico-dental program for senior dental students at the hospital.*

* From Jour. American College Dentists, 14:232, Dec. 1947; "Dental Education: Objective and Purpose" by Walter H. Wright, D.D.S., Dean, New York University College of Dentistry, Honorary Member, A.A.D.M.

THE ROLE OF PULP CANAL THERAPY IN DENTAL MEDICINE†

J. A. ENGLANDER, *Jersey City, N. J.**

We are assembled primarily to discuss dental problems closely related to medicine.

The devitalized tooth has been accused of causing anything from asthma to xerostomia. It has borne up well under continued attacks by overwhelming evidence that it is not the causative agent of chronic diseases. Let us understand that this paper is no apologia for devitalized teeth, generally or specifically.

The problem of devitalized teeth has brought the dentist and physician together many times. A more thorough understanding of the problem will aid immeasurably in the ultimate disposition of certain questionable teeth.

With the introduction of the theory of focal infection, many teeth were extracted. Certainly with the knowledge at our disposal now, most of these could have been avoided. We have much evidence to prove that unnecessary and indiscriminate extractions of such teeth have caused undue physical and mental pain, particularly since there was no apparent improvement in the condition of the patient.

M. Solis-Cohen[1] questions the original theory of focal infection by Rosenow and insists that there has been no general acceptance of any test to determine the infective quality of the bacteria. He emphasizes the fallacy of concentrating on the infected tissues rather than the infecting organisms. He adds that although the bacteria may be pathogenic for other individuals and laboratory animals, they may not be pathogenic for the host.

Fish,[2] in animal experimentation demonstrated that when hemolytic streptococcus and attenuated staphylococcus were planted in the lower jaw of guinea pigs they were entirely surrounded by polymorpho-nuclear leukocytes and were not distributed at random in the tissues.

When a radiographic examination of the tooth reveals periapical rarefaction we should not hesitate to treat it since, according to Kronfeld[3] "its (granulation tissue) formation may be considered as the defensive or reparative reaction of the organisms inasmuch as in many instances, the granulation tissue initiates or precedes the healing of wounds."

While we might find that the extraction of certain teeth may alter the condition of a patient, it is noteworthy that, according to Burkett,[4] a focus of infection is derived from the following causes, in the order of frequency:

a. periodontal disease
b. periapical lesions retained from roots or residual infections
c. infected pulps

The evidence should reassure us from a medical viewpoint that it is perfectly safe to treat infected teeth and retain them.

From experience in treating hundreds of such cases the author[5] has demonstrated that a simple conservative treatment has proved most satisfactory. Certain fundamental principles must be observed in pulp canal therapy. Briefly noted they are:

a. diagnosis and selection of cases
b. asepsis
c. access
d. removal of all organic tissues
e. compact root canal filling.
f. understanding and cooperation of the patient

† Read before the American Academy of Dental Medicine, Dec. 7, 1947.

* Assistant Professor, Root Canal Therapy Department, New York University College of Dentistry.

As a result of this information, it should prove to be of great benefit to the patients who will receive the ultimate in good care from the combined application of dental and medical skill and knowledge.

2116 Boulevard

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2. Fish, E. Wilfred: "Bone Infection." Journal A.D.A. May 1936.
3. Kronfeld, Rudolph: "Histopathology of Teeth and Their Surrounding Structures." Philadelphia Lea and Febiger. 1933.
4. Burket, Lester W.: "Oral Medicine." Lippincott. 1946.
5. Englander, J. A.: "Bone Regeneration Following Conservative Root Canal Treatment." Journal A.D.A. November, 1940.

Appointment Of Commissioned Officers In The Medical Corps and Dental Corps Of The Regular Navy

Recent legislation makes it possible now to appoint qualified civilian physicians and dentists over 32 years of age as commissioned officers in the regular Navy with rank up to and including Captain. Previously, only those physicians and dentists under 32 years of age could be appointed in the regular Navy and then only with the rank of lieutenant, junior grade. The law considers all strata of the medical and dental professions, internes, residents, reserves, former officers who have resigned, and present practicing physicians and dentists.

The new law offers a fine opportunity for civilian physicians and dentists to make a career in the regular Navy and to enjoy its professional advantages as well as its retirement benefits. Physicians and dentists interested in such a career should contact the nearest Office of Naval Officer Procurement or write to the Bureau of Naval Personnel, Department of the Navy, Washington, D. C.

Connecticut Section Report

The Connecticut Section of the American Academy of Dental Medicine met for the first time at the Hotel Pennsylvania in New York on Dec. 8th, 1947 and elected officers for the year of 1948. The following men were elected: Dr. Edward T. Fischer of Fairfield, President; Dr. Charles E. Barrett, Jr., of West Hartford, President-elect; and Dr. William A. Rosenfield of Darien, Secretary-treasurer. Plans were made to hold a meeting at the Hotel Taft in New Haven on Jan. 14th, 1948. Dr. J. Lewis Blass, President- elect of the Academy was our guest speaker at this meeting and he presented to the group a resume of the activities and aims of the Academy since its inception. His plea for research of dental and medical problems stimulated all those present.

The following men are to be considered the charter members of the Conn. Section: Dr. Charles E. Barrett, Jr., 10 No. Main St., West Hartford, Conn.; Dr. Sidney Eisenberg, 55 Main St., New Britain, Conn.; Dr. Arthur L. Fern, 57 Pratt St., Hartford, Conn.; Dr. Edward T. Fischer, Community Building, Fairfield, Conn.; Dr. Franklin Goldman, 29 No. Main St., So. Norwalk, Conn.; Dr. Clifford G. Johnson, 710 City Trust Building, Bridgeport, Conn.; Dr. Liebertal, Professional Building, Lafayette St., Bridgeport, Conn.; Dr. William A. Rosenfield, 190 Post Road, Darien, Conn.; Dr. Harold Sahl, 864 Hope St., Springdale, Conn.; Dr. Edmund H. Zabriskie, 20 Meadow Place, Old Greenwich, Conn.

CLINICAL PROCEDURES*

GEORGE FRANCIS CLARKE, D.M.D., *Boston, Mass.*

According to our constitution, the work of our Academy is to promote the study and dissemination of knowledge of the cause, prevention and control of diseases of the teeth and their supporting structures. This is not for the benefit of the periodontists, it is not for the benefit of the general dental practitioner; it is not even for the benefit of our own patients, but it is for the benefit of the general public who have learned that periodontal disease and diseases of the mouth can be controlled.

This afternoon you have heard some very interesting and learned discussions concerning Oral Medicine and especially Periodontology. This is as it should be, for only by research and deep study can we broaden our knowledge of these subjects.

But we must go one step further. This newer knowledge, and all the knowledge on periodontal disease, must be translated into terms and techniques within the scope of the general practitioner.

Because periodontal disease rates with dental caries and the common cold on the top of the list of human afflictions, its treatment and cure must be in the hands of the general dental practitioner. Only the difficult or involved cases should need the care of the periodontal specialist. Even at the chance of over-simplification, a technique must be developed that the dentist can use safely and with reasonable success. The results would not be 100 percent, but should average as high as for his operative, surgery or prosthetic work.

Most periodontists agree that 85 percent of the cases are purely local in character and that the other 15 percent can be improved by local treatment. That puts the bulk of periodontal cases in a field that the general dentist is well equipped to handle.

He must be taught how to do a real examination so that he can recognize systemic conditions as well as active and incipient periodontal lesions.

He must be taught occlusal equilibration, for occlusal disharmony is an important factor in a large percentage of cases. The care of the occlusion is well within his capabilities once he really learns the technique.

For the elimination of the periodontal pocket, the method of choice in most cases is subgingival curettage. This technique can be mastered by the dentist, and usually is safer and surer for him than surgery. With this as a basis, and a few successful cases to his credit, he can be expected to learn something of diet and systemic conditions.

But he must have a simplified technique to start with. He must walk before he can run.

The more widely periodontal knowledge is spread through the profession, the more nearly will we do our duty to the public. And more difficult cases will be discovered to fill the offices of our periodontal specialists.

10 Post Office Square

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* Read before the American Academy of Dental Medicine, Dec. 7, 1947.

PSYCHOGENIC SIALORRHEA AND STOMATOPYROSIS

SAMUEL CHARLES MILLER, D.D.S., F.A.C.D.*

A white male, aged 60, was referred by his dentist because of a complaint of excessive salivation and a salty taste with a burning sensation of the tongue and oral mucous membranes. He had spent four weeks at one hospital under observation and two weeks at another hospital with no apparent improvement. In addition, he had made the rounds of physicians and dentists who prescribed various mouth washes, antisialogogues and sedatives, all of which gave temporary or no relief. Extraction of all of his teeth on the advice of his dentist and their replacement by dentures did not change the situation.

Investigation indicated that the condition arose fourteen years previously and was accentuated three years ago. Upon questioning for associated factors, the information was easily elicited that the first attack of burning occurred fourteen years ago in the stockbroker's office when told that his account has ben closed out. The accentuation three years ago was precipitated by his wife's death. During the course of this interview which lasted less than fifteen minutes, it was noted that the patient seemed calmer and somewhat relieved and that the previous tenseness with continuous activity of his fingers and facial muscles had departed. At the termination of the interview, the patient volunteered the information that for the first time he could remember he was completely free of oral discomfort. A few more minutes were taken to reassure the patient, explaining that the discomforts may return but each time in milder form until they would eventually disappear. His daughter, a trained nurse, phoned the next day reporting that her father had no recurrence of the discomfort as yet. Whatever the outcome, the close association with psychic trauma is of practical diagnostic interest.

57 West 57th Street

* Professor of Periodontia and Chairman of the Periodontia Department, New York University College of Dentistry.

Program of Annual Meeting—June 12, 13, 1948

AMERICAN ACADEMY OF DENTAL MEDICINE
Hotel Pennsylvania, New York City

Saturday, June 12th

8 A.M.	Trustees breakfast meeting.
10 A.M.	Business meeting.
12:30 P.M.	Luncheon and Fellowship award.
2 P.M.	Scientific Session—original papers.
4 P.M.	Discussion.
5-6 P.M.	Business Meeting.
7 P.M.	Banquet and entertainment. Informal.

Sunday, June 13th

10 A.M.	Business meeting.
12:30 P.M.	Luncheon.
2:30 P.M.	Table clinics.
5:00 P.M.	Business meeting.

J. LEWIS BLASS, *Chairman*
LOUIS R. BURMAN
WILLIAM M. GREENHUT

ANNOUNCEMENTS

Post-Graduate Courses at Ohio State

Eleven courses of five days each will be presented during the Spring series of the Post-Graduate Courses in Dentistry at Ohio State University's College of Dentistry, according to Dr. Hamilton B. G. Robinson, director of the Post-Graduate Division.

The following schedule of courses is planned:

Anatomy of Head and Neck, March 29 to April 2; Oral Pathology, April 5 to April 9; Roentgenology, April 12 to April 16; Crown and Bridge, April 19 to April 23; Partial Dentures, April 26 to April 30; Full Dentures, May 3 to May 7; Operative Dentistry, May 10 to May 14; Oral Surgery, May 17 to May 21; Children's Dentistry, May 24 to May 28; Endodontia, May 31 to June 4, and Dental Caries Control, June 7 to June 11.

Fees for these courses, which are supported in part by a grant from the W. K. Kellogg Foundation, are $50 per unit. Veterans are eligible to take the work under provisions of the G.I. Bill of Rights.

Dentists interested in enrolling may take one or more units during each series. Preference is given to Ohio residents and veterans, but it is expected that it will be possible to admit out-of-state dentists and non-veterans in many of the courses.

Further information may be obtained from the Post-Graduate Division, College of Dentistry, Columbus 10, Ohio.

Meeting of A.A.O.P.

At a meeting of the American Academy of Oral Pathology, held in Chicago on February 8, 1948, the following officers were elected:

Lester R. Cahn, Columbia University, President
Paul E. Boyle, University of Pennsylvania, President-elect
Lester W. Burket, University of Pennsylvania, 1st Vice-President
Henry M. Goldman, Boston, Massachusetts, 2nd Vice-President
Hamilton B. G. Robinson, Ohio State University, Editor
Joseph L. Bernier, Army Institute of Pathology, Secretary

A total of twelve papers on various phases of Oral Pathology were presented by Oral Pathologists from various institutions throughout the country during the all day meeting of the Academy.

HAMILTON B. G. ROBINSON, *Editor*
Ohio State University
College of Dentistry
Columbus 10, Ohio

International Association for Dental Research Meeting

The next meeting of the New York Section of the International Association for Dental Research will be held at the Guggenheim Dental Clinic, 422 East 72nd Street, New York, N. Y., on April 29, 1948 at 8:30 P.M. All communications regarding the program should be addressed to Isaac Neuwirth, Secretary, College of Dentistry, New York University, 209 East 23rd Street, New York 10, N. Y.

BOOK REVIEWS

Diagnosis In Daily Practice, by Benjamin V. White, M.D. and Charles F. Geschickter, M.D. 693 pages. Phila., Pa., J. B. Lippincott Co. 1947, $15.00.

This well illustrated addition to our diagnostic armamentarium is involved in everyday practice. The physician is primarily responsible for the management of those illnesses which are the major cause of disability and death. Consequently, he should hold himself accountable for the prompt recognition and handling of the predisabling phases of such diseases in order to prevent more drastic complications. The author brings to the foreground of medical consciousness the major causes of disability and death and thus emphasizes the group of disorders which constitutes the major medical concern in everyday practice. Physical examination has been derived from an analysis of the prevalent early findings in each of these major diseases. This enables the physician to rule out the presence of all the common diseases with a degree of accuracy commensurate with the present achievements of medical science. The abnormal is to be sought on routine examination together with the supplementary procedures to be undertaken in the presence of positive routine findings. They are given in diagrammatic form for quick reference. Other chapters consider diagnostic abnormalities individually from the standpoint of pathology, physiology and laboratory procedures. There are also tables for each abnormality relating to the differential diagnosis of the major diseases. The book is divided into five parts; the first gives the diagnostic survey; the second symptom diagnosis; third physical findings; fourth, laboratory procedures; fifth, a systematic survey of the major diseases and diagnostic implications. The book is a veritable eye-opener for diagnostic possibilities in the evaluation of a patient. All aspects of medicine are integrated in the cause of early and accurate diagnosis.

I. Newton Kugelmass

Dentistry for Children (Second Edition), by John Charles Brauer, D.D.S., A.B., M.Sc., F.A.C.D., L. B. Higley, B.A., D.D.S., F.A.C.D., Maury Massler, D.D.S., M.S., and Isaac Schour, D.D.S., Ph.D., D.Sc., 417 pages, illustrations. Phila., Pa., The Blakiston Company. $8.50.

To the second edition of this book has been added the names of two prominent teachers in the field of pedodontia,—Maury Massler and Isaac Schour. The text has been divided into two parts; the first of which is titled "Fundamental Considerations in the practice of Dentistry for Children." The second part deals with "Technical Procedures in the Praetice of Dentistry for Children."

The format is excellently planned and the profuse illustrations are clear cut and invaluable as teaching aids.

Of particular interest are the sections on parent and child handling, preventive orthodontics, lesions of the soft tissues, nutrition and oral disease, and the endocrine glands. Throughout, all phases of children's dentistry are given in detail.

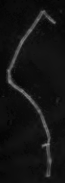
Dentistry for Children is a fine refresher and postgraduate course for those who have failed, heretofore, to give due consideration to the "little people."

A.N.A.

A History of Dentistry (Second Edition), by Arthur Ward Lufkin, D.D.S., F.A.C.D. 367 pages, 104 illustrations. Phila., Pa., Lea and Febiger. $4.50.

Dr. Lufkin's book reads like an historical novel. Beginning with the dental diseases of prehistoric and ancient people up to the present, the author has filled his pages with the drama of unfolding centuries.

To know the history of dentistry is to know the "pangs and arrows of outrageous fortune" suffered by our ancestors. It is said that the lines of suffering on the face of George Washington so evident in the Gilbert Stuart portraits, were due to years of dental suffering. The pages devoted to the story of Washington's dentistry are alone worth the price of this book.

A new section on the *Specialties in Dentistry* has been added to this edition with separate chapters on the histories of periodontology and oral hygiene, oral surgery, operative surgery and prosthesis.

A.N.A.